

Defendant Lawrence Ray (“Ray” or “Defendant”) moves to exclude four of the government’s witnesses from testifying as experts at his forthcoming criminal trial. In the alternative, he moves for a *Daubert* hearing to evaluate the proffered testimony of each of the four witnesses. The four witnesses are (1) Andrew Petersohn, a licensed professional engineer, whom the government offers to testify regarding the “geographical area or range within which the wireless devices assigned [three specific numbers] were used on certain dates in 2018 and 2019,” Dkt. No. 263-1 at 5, including that the devices used cell sites in close geographic proximity and that two of the devices “most frequently accessed cell sites located near Piscataway, New Jersey,” Dkt. No. 263-2 at 4; (2) Dawn Hughes, Ph.D., a clinical and forensic psychologist and purported expert “on sexual abuse, interpersonal violence, victimization, and traumatic stress,” Dkt. No. 263-1 at 3, who “is expected to testify about coercive control as a tactic of victimization and a strategy to gain dominance across a spectrum of relationships,” *id.* at 4; (3) Richard Pleus, Ph.D., who is expected to testify that Ray “has not suffered any health impairment from intentional poisoning,” Dkt. No. 263 at 49–50; and (4) FBI Agent Stephen Flatley, who is expected to testify about the extraction of certain electronic devices and the imaging of digital material in connection with the case, Dkt. No. 263-1 at 2–3.

Ray asserts that the government's notice in connection with Petersohn and Dr. Hughes failed to satisfy Federal Rule of Criminal Procedure 16(a)(1)(G) and that their proposed testimony should be excluded on *Daubert* and relevance grounds and because it is more prejudicial than probative. He argues that Dr. Pleus's opinions should be excluded or limited because Dr. Pleus is not qualified to offer specific testimony regarding Ray and has not examined sufficient facts or data to render his opinion. And he argues that Special Agent Flatley should not be permitted to testify as an expert both because the government disclaims any intention to call him as an expert and because the Second Circuit has frowned upon the same person, particularly a law enforcement official, testify as both a lay witness and as an expert.

The government, in turn, moves to exclude the testimony of two of Ray's witnesses: (1) John D. Minor, an "independent researcher/author/investor" who will testify regarding cell-site information, and (2) Dr. Andres Lugo who will testify regarding Ray's claim to have been the victim of mercury poisoning. The government argues that the expert notice for each of these witnesses is deficient and that its witnesses testifying about these topics renders Ray's witnesses needlessly cumulative or otherwise irrelevant.

### **LEGAL STANDARD**

Two sets of standards are relevant to the pending motions. Federal Rule of Criminal Procedure 16(a)(1)(G) addresses the reports that must be made by the parties in advance of trial regarding expert testimony. It requires the government, upon a defendant's request, to "give to the defendant a written summary of any testimony that the government intends to use under [Federal Rules of Evidence] 702, 703, or 705 . . . during its case-in-chief at trial." Fed. R. Crim. P. 16(a)(1)(G). A different provision of Rule 16 provides that, if the government complies with a defendant's request under subsection (a)(1)(G), and the government requests it, the defendant must provide a written summary of the expert testimony it intends to use. *Id.* (b)(1)(C)(i). The

summary provided “must describe the witness's opinions, the bases and reasons for those opinions, and the witness's qualifications.” *Id.* (a)(1)(G); (b)(1)(C); *see also United States v. Ranieri*, 2019 WL 2212639, at \*4 (E.D.N.Y. May 22, 2019).

The rule “is intended to minimize surprise that often results from unexpected expert testimony, reduce the need for continuances, and to provide the opponent with a fair opportunity to test the merit of the expert’s testimony through focused cross-examination.” Fed. R. Cr. P. 16 advisory committee’s note to 1993 amendment. “‘Merely identifying the general topics about which the expert will testimony is insufficient; rather, the summary must reveal the expert’s actual opinions.’” *United States v. Kaufman*, 2021 WL 4084523, at \*19 (S.D.N.Y. Sept. 8, 2021), *appeal filed* (2d Cir. Oct. 13, 2021) (quoting *United States v. Valle*, 2013 WL 440687, at \*5 (S.D.N.Y. Feb. 2, 2013)).

Federal Rule of Evidence 702 governs the admissibility of expert testimony. It provides that:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion if . . . : (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

Fed. R. Evid. 702. “[T]he proponent of expert testimony has the burden of establishing by a preponderance of the evidence that the admissibility requirements of Rule 702 are satisfied, the district court is the ultimate gatekeeper.” *United States v. Jones*, 965 F.3d 149, 161 (2d Cir. 2020) (alteration omitted) (quoting *United States v. Williams*, 506 F.3d 151, 160 (2d Cir. 2007)). Rule 702 requires the proponent to establish and the trial judge to find “that any and all scientific testimony or evidence admitted is not only relevant, but reliable.” *Daubert v. Merrell Dow*

*Pharms., Inc.*, 509 U.S. 579, 589 (1993). This “gatekeeping obligation” applies “to all expert testimony.” *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 147 (1999).

“The objective of [the gatekeeping] requirement is to ensure the reliability and relevancy of expert testimony. It is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Id.* at 152. Relevancy is determined by whether the proffered evidence “has any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable.” *Amorgianos v. Nat’l R.R. Passenger Corp.*, 303 F.3d 256, 265 (2d Cir. 2002) (internal quotation marks and citations omitted and alteration adopted). Reliability is determined by considering if (1) “the testimony is based on sufficient facts or data”; (2) “the testimony is the product of reliable principles and methods”; and (3) “the expert has reliably applied the principles and methods to the facts of the case.” Fed. R. Evid. 702; *see also Amorgianos*, 303 F.3d at 265 (citing this standard).

Courts are to adhere to a “liberal standard of admissibility for expert opinions,” *Nimely v. City of New York*, 414 F.3d 381, 395 (2d Cir. 2005), beginning with “a presumption that expert evidence is admissible,” *Chen-Oster v. Goldman, Sachs & Co.*, 114 F. Supp. 3d 110, 115 (S.D.N.Y. 2015) (citing *Borawick v. Shay*, 68 F.3d 597, 610 (2d Cir. 1995)). “Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.” *Daubert*, 509 U.S. at 596; *see also Amorgianos*, 303 F.3d at 267. Not every expert admissible under *Daubert* need rely on a method that conforms with “the exactness of hard science methodologies.” *E.E.O.C. v. Bloomberg, L.P.*, 2010 WL 3466370, at \*14 (S.D.N.Y. Aug. 31,

2010) (quoting *United States v. Simmons*, 470 F.3d 1115, 1123 (5th Cir. 2006)). However, a court still must determine that the evidence is “sufficiently reliable so as to be admissible.” *Amorgianos*, 303 F.3d at 268. “In deciding whether a step in an expert’s analysis is unreliable, the district court should undertake a rigorous examination of the facts on which the expert relies, the method by which the expert draws an opinion from those facts, and how the expert applies the facts and methods to the case at hand.” *Id.* at 267. “[I]t is critical that an expert’s analysis be reliable at every step.” *Id.* Even “[i]f the witness is relying solely or primarily on experience, [he still] must explain how that experience leads to the conclusion reached, why that experience is a sufficient basis for the opinion, and how that experience is reliably applied to the facts.” *Alto v. Sun Pharm. Indus., Inc.*, 2021 WL 4803582 (S.D.N.Y. Oct. 13, 2021) (internal quotation marks omitted) (quoting *Pension Comm. of Univ. of Montreal Pension Plan v. Banc of Am. Sec., LLC*, 691 F. Supp. 2d 448, 473 n.148 (S.D.N.Y. 2010)).

Although “nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by *ipse dixit* of the expert,” *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997), “many factors ‘will bear on the inquiry’ of whether Rule 702 is satisfied, . . . and . . . ‘the inquiry envisioned by Rule 702 is a flexible one,’” *Jones*, 965 F.3d at 161 (alteration omitted) (quoting *Daubert*, 509 U.S. at 593–94).

The proponent of expert testimony need only show that the requirements for admissibility are satisfied by a preponderance of the evidence. See *Bourjaily v. United States*, 483 U.S. 171, 175 (1987).

## DISCUSSION

The Court considers Defendant's objections with respect to each of the government's witnesses in turn. It then considers the government's objections to Defendant's proposed expert witnesses.

### I. Andrew Petersohn

Ray argues that the testimony of the government's cell-site expert, Andrew Petersohn, should be excluded both because the government's notice is deficient and because the government has not met its burden of establishing admissibility under *Daubert*.

Petersohn is offered by the government to testify regarding his analysis of certain cell-site location information. Petersohn will testify that a cellphone separately identified as Ray's and a second cell-phone identified as belonging to Ray's co-conspirator Isabella Pollok were used on specified days near Piscataway, New Jersey and that, also for specified dates, they accessed cell sites nearby a third cellphone used by a person identified by the parties as Female Victim-1.

Petersohn is the Principal Engineer at dBm Engineering. He is a licensed Professional Engineer in the states of Delaware, Florida, Maryland, New Jersey, New York, Pennsylvania, and Virginia. He holds Bachelor of Science and Master of Engineering degrees in Electrical Engineering from Lehigh University and has been engaged in the cellular service provider industry since 1997, working as either an employee or contractor for T-Mobile, Verizon, AT&T, Nextel, and Bell Atlantic. He has experience in designing and testing cellular networks including drive tests and performance analysis tests to determine coverage areas of cell site, and he has testified as an expert in radiofrequency design and cell-site analysis.

Petersohn is expected to testify that analyzing cell-site location data obtained from service providers is a reliable way to approximate the geographic area or range in which a wireless device was likely located at the time of the connection to the cell site, including for

wireless devices that were serviced by AT&T and Verizon in Manhattan and New Jersey in or about 2018 and/or 2019. He is further expected to testify about the geographical area or range within which the wireless devices used by Ray, Pollok, and Female Victim-1 were used on certain dates in 2018 and 2019. The government proffers that his testimony will establish two points: (1) the wireless devices were located in geographic proximity to one another at relevant times, corroborating the evidence that Ray was in proximity to his co-conspirator; and (2) the wireless devices were in geographic proximity to locations of relevance to the case, including, with respect to the wireless device of Female Victim-1, the locations at which other proof will establish that she engaged in commercial sex acts. Dkt. No. 265 at 18; *see also* Dkt. No. 283 at 1.

According to the government, Petersohn's testimony is based on: "his education, training and experience; his review of information about AT&T and Verizon cell sites in Manhattan and New Jersey in or about 2018 and 2019; and his review of the geography, topography and environmental and man-made factors that might affect the functioning of cell sites in Manhattan and New Jersey." Dkt. No. 263-1 at 4.

The government first made a disclosure about Petersohn as required on November 15, 2021. The November 15, 2021 notice indicated Petersohn's qualifications, the general subject of his testimony, that he was going to testify about the three cellphones, the particular devices about which he would testify, and the particular dates of use as to which he would testify. It also identified the records upon which Petersohn would rely, with the date on which they were produced to the defense in February 2020 and their control numbers. The notice also reflected that Petersohn was preparing draft maps reflecting the geographical area or range within which

the devices were used and that those would be produced to defense counsel on or before December 15, 2021.

On December 3, 2021, in response to defense questions served the prior day, the government provided further notice and information. It provided the defense with a revised chart containing dates and device information and explained that Petersohn would testify that “for each of the dates identified in the ‘date’ column of [the chart], the devices in the ‘device’ column used cell sites in close geographic and temporal proximity.” Dkt. No. 263-2 at 4. The government also disclosed that Petersohn was expected to testify that, in 2018 and 2019, two of the devices (used by Ray and Pollok) in the chart “most frequently accessed cell sites near Piscataway, New Jersey.” *Id.* This supplemental disclosure indicated that “Petersohn’s testimony is based on his industry experience, 3GPP standards, and the cell site records [previously produced to the defense].”<sup>1</sup> *Id.* at 4.

On December 15, 2021, the government produced eighty-four pages of draft maps to the defense. *See* Dkt. Nos. 275-1, 275-2. The maps are color-coded by cellphone number. They indicate the location of a cell site to which a cellphone had a connection at a relevant time. *Id.*

Ray argues first that the expert notice for Petersohn is insufficient in that it fails to show his qualifications, his opinions, or the bases and reasons for those opinions. Dkt. No. 263 at 3. He also argues that, based on what is disclosed, Petersohn is not qualified to offer the proffered testimony. Dkt. No. 275 at 8. The government’s disclosure, however, has extensive information about Petersohn’s qualifications including that he is a licensed Professional Engineer, has been engaged in the cellular service provider industry for over twenty years, and has experience in

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<sup>1</sup> The December 3 disclosure responded to an email from the defense on December 2, 2021, asking the Government numerous questions. *See* Dkt. No. 263-2.



designing and testing cellular networks. The resume establishes his qualifications as an expert. Much of Petersohn’s experience is in industry, working for cellular service providers; it does not reflect that he has taken courses related to historical cell-site analysis. But a field need not be one in which there are academic or continuing education courses for it to be a proper subject of expert testimony, *see Kumho Tire*, 526 U.S. at 147–49, and an expert need not be a full-time professional testifying expert for his testimony to be admissible. “[T]here are many different kinds of experts, and many different kinds of expertise.” *Id.* at 150. Rule 702 extends to any person “who is qualified as an expert by knowledge, skill, experience, training, *or* education.” Fed. R. Evid. 702 (emphasis added); *see also, e.g., United States v. Romano*, 794 F.3d 317, 330 (2d Cir. 2015) (upholding admission of rare-coin expert testimony and explaining that “[t]he fact that the subject matter is not ‘scientific’ is no bar to admissibility of expert testimony” and that “in some cases, the relevant reliability concerns may focus upon personal knowledge or experience” (first quoting *United States v. Kayne*, 90 F.3d 7, 11 (1st Cir. 1996); and then quoting *Kumho Tire*, 526 U.S. at 150)). Contrary to Ray’s suggestion, expert witnesses in federal court are not limited to those who have a “background or training in forensic analysis.” Dkt. No. 275 at 8. *See generally Kumho Tire*, 526 U.S. 137.

Furthermore, although Petersohn and his company are based in Pennsylvania and much of his work experience also took place in Pennsylvania, to say that his sphere of knowledge is limited to that state “is an overly narrow assessment” of Petersohn’s expertise. *Raniere*, 2019 WL 2212639, at \*6. Though Petersohn need not have experience working on “cell site networks in New York City,” Dkt. No. 275 at 8, to be qualified to testify, based on his background and experience, what the records reveal regarding calls in New York City and New Jersey, he does have experience analyzing cell-site location records in New York City. *See* Dkt. No. 265-3 (Tr.

of Andrew Petersohn *Daubert* Hearing, *United States v. Scales*, No. 19 Cr. 096 (S.D.N.Y. July 13, 2021) ECF No. 203). He has also testified that he has experience doing drive tests in high-density areas like downtown Philadelphia, where he estimated that he did “probably hundreds” of such tests. *Id.* at 48. “To determine whether a witness qualifies as an expert, courts compare the area in which the witness has superior knowledge, education, experience, or skill with the subject matter of the proffered testimony.” *United States v. Chin*, 371 F.3d 31, 40 (2d Cir. 2004). The government has adequately described the witness’s qualifications, and they are sufficient to permit Petersohn to testify. *See Ranieri*, 2019 WL 2212639, at \*5. Questions regarding his experience in New York City go to weight and not to admissibility.

The November 15 and December 3 disclosures, when combined with the production of maps on December 15, 2021 and with the government’s disclosures at oral argument,<sup>2</sup> for the most part give the defense adequate notice regarding Petersohn’s opinions and the bases and reasons for those opinions. The disclosure reveals more than “the general topics about which the expert will testify.” *Kaufman*, 2021 WL 4084523, at \*19. It indicates what wireless devices the expert will reference and the cell sites with which those devices communicated at the relevant

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<sup>2</sup> At oral argument on January 6, 2022, the government explained that the outer boundaries of the circles and wedges on the maps provided to the defense do not indicate the outer bounds of the potential locations of the cell phones, but that the shapes were used to draw the eye to the location. The defense objected that such use of the maps was misleading. The Court’s conclusion that the maps, combined with the notice, satisfy Rule 16 is not meant to prejudge the question of whether the maps in isolation are misleading. The Court will hear the parties on whether the maps are misleading at trial if the size of the circles and wedges are intended only to draw the eye to particular locations and have no other significance. The defense makes a separate objection that the maps do not contain a textual explanation of what they purport to be asserting. To the extent that such objection is directed to the admissibility of the maps as a demonstrative exhibit, it is not well-founded. The maps themselves need not explain in words what they purport to be showing as long as they are fair and accurate and not misleading and the expert is prepared to explain the maps.

times. From the maps, the defense has notice of whether wireless devices were in geographic proximity to one another.

The disclosure of the basis also is sufficient. Petersohn will testify based on his education, training and experience, his study of records produced by the cellular service providers in this case, and the fact that wireless devices (including cellphones) are designed to meet universal industry protocols by which phones connect to the cell site that provides the strongest and clearest signal. Based on this knowledge and experience, Petersohn is able to testify that the cell tower that provides the strongest and clearest available signal is ordinarily the nearest cell site and that even when the cellphone does not connect to the nearest cell site, it is very likely to connect to the second and third closest cell site. He is thus able to study the cellphone records and locate the likely cellphone towers that would likely provide the strongest and clearest signal. He also would testify that the strength of a signal is strongly correlated with the distance between the cellphone and the cell site. From that analysis, which is based on cell-site location data obtained from service providers, he can approximate the geographical area or range within which a wireless device was likely located at the time of its connection to the cell site. Dkt. No. 263-1 at 5. His disclosure need not be based on “citation to any authority.” Dkt. No. 275 at 13. It is sufficient that it be based on his knowledge, experience, and training.

The disclosure is deficient only in one respect but that respect does not require exclusion of Petersohn’s testimony and can be cured. The government is correct that it need not disclose precisely how far away a phone was to any particular site in Piscataway in order for the disclosure to satisfy Federal Rule of Criminal Procedure 16. That request would ask the impossible of the government expert. “At best, ‘historical cell-site analysis can show with sufficient reliability that a phone was in a general area, especially in a well-populated one.’”

*United States v. Medley*, 312 F. Supp. 3d 493, 499 (D. Md. May 8, 2018) (alteration adopted) (quoting *United States v. Hill*, 818 F.3d 289, 298 (7th Cir. 2016)); cf. *United States v. Frazier*, 2016 WL 4994956, at \*3 (D. Nev. Sept. 16, 2016) (holding that cell site location testimony establishing that defendant was “near the location of the crimes at the time the crimes occurred” was admissible). However, the government’s Rule 16 notice does not disclose the substance of Petersohn’s expected testimony regarding the approximate range of distance the wireless devices would be from the cell location, whether in New York City or in New Jersey. If Petersohn intends to give testimony regarding the likely greatest distance (or approximate distance) a wireless device would be from the cell location either in New York City or in New Jersey, the government should provide notice of that testimony. The notice need not provide “reasonable approximation” by “foot.” Dkt. No. 275 at 5. That may well be impossible and be another way of asking for false precision. The government also need not provide notice for each call at issue; if, for example, the witness will testify regarding general distances in New York City, it is sufficient for the government to provide notice of that testimony. But if the witness will testify that a wireless device was within the general location of a cell site or a cell tower, the government should disclose what is means by “general location.” That notice shall be provided within two weeks of the date of this Order.

Contrary to the defense’s argument, the expert need not cite any records or scientific literature he relied upon. The Second Circuit has squarely held that an expert need not “back his or her opinion with published studies that unequivocally support his or her conclusions.” *Amorgianos*, 303 F.3d at 266. “A contrary requirement ‘would effectively resurrect a *Frye*-like bright-line standard . . . by excluding expert testimony not backed by published (and presumably peer-reviewed) studies’ [and] would be at odds with the liberal admissibility standards of the

federal rules and the express teachings of *Daubert*.” *Id.* at 267 (quoting *Heller v. Shaw Indus., Inc.*, 167 F.3d 146, 155 (2d Cir. 1999)); *see also United States v. Cerna*, 2010 WL 2347406, at \*2 (N.D. Cal. June 8, 2010) (“Rule 16(a)(1)(G) does not require recitation of the chapter and verse of the expert’s opinions, bases and reasons. No rule, statute, or decision necessitates such comprehensive disclosure”).<sup>3</sup>

Next, Ray argues that Petersohn’s testimony should be excluded under *Daubert*. Ray argues that the testimony is unreliable because it is not known whether the underlying data is accurate, the external factors that affect the signal strength of the surrounding cell sites, or the precise coverage range of the relevant towers and how often the cellphone does not connect to the closest towers. Dkt. No. 263 at 15. He also argues that cell-site location information cannot pinpoint an individual’s location, *id.* at 20, has not been subject to peer review or publication, *id.* at 21, has no known error rate, *id.* at 22–23, and is not generally accepted by the relevant scientific community, *id.* at 23. Each of these arguments has been considered by other courts which have rejected *Daubert* challenges to similar testimony, and the Court finds their analyses persuasive. *See* Dkt. No. 265-3 (Tr. of Andrew Petersohn *Daubert* Hearing, *Scales*, No. 19 Cr. 096, ECF No. 203); *Medley*, 312 F. Supp. 3d at 500–02 (D. Md. May 8, 2018) (admitting cell-site location analysis as long as it does not overstate its precision); *United States v. Rosario*,

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<sup>3</sup> The disclosure here is far more extensive than that found deficient in *United States v. White*, 492 F.3d 380, 407 (6th Cir. 2007), where the disclosure contained only a brief summary of the witnesses’ expected testimony and *United States v. Duvall*, 272 F.3d 825, 828 (7th Cir. 2001), in which the notice listed only the topics as to which the witness would testify but not his opinions with respect to those topics. *See United States v. Poulsen*, 2007 WL 4248206, at \*3 (S.D. Ohio Nov. 30, 2007) (distinguishing *White* as a case in which the government provided the defendant “with only the witnesses’ titles, employers, and contact information, and a brief statement summarizing the witnesses’ testimony”). Here, the government has not just disclosed that Petersohn will testify on the topic of cell-site location information but has also disclosed what his analysis of that cell-site information has shown.

2014 WL 6076364, at \*3 (S.D.N.Y. Nov. 14, 2014) (cell-site location evidence satisfies *Daubert*); *United States v. Fama*, 2012 WL 6102700, at \*3–4 (E.D.N.Y. Dec. 10, 2012); *see also United States v. Jones*, 918 F. Supp. 2d 1, 5 (D.D.C. 2013) (“[T]he use of cell phone location records to determine the general location of a cell phone has been widely accepted by numerous federal courts.”) (citing cases). “*Daubert* makes clear that the factors it mentions do *not* constitute a ‘definitive checklist or test.’” *Kumho Tire*, 526 U.S. at 150 (quoting *Daubert*, 509 U.S. at 593). It is sufficient that the “expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” *Id.* at 152.

Ray also suggests that Petersohn’s methodology is unreliable because it does not take into account the effect of certain characteristics of Manhattan, including the surrounding water, the density, and the complexities in coverage resulting from “buildings, people, and other obstacles.” Dkt. No. 275 at 17. As Petersohn described in detail in his testimony in *United States v. Scales*, his methodology for determining cell sites to which a phone connects does consider external factors that could affect that connection, and he has undertaken this analysis with respect to cell sites in Manhattan and the Bronx. Dkt. No. 265-3. For example, he explained that, generally, a phone will connect to the closest site because that is generally the strongest and most clear site, but intervening obstacles like buildings play a part in the process and may cause a phone to connect to another tower. *Id.* at 8. He also noted that “it’s very important [to] study the area in which . . . call detail records are” in conducting his analysis, *id.* at 9, and, in explaining what factored into his analysis, took note of the topography and population density of an area for he analyzed in the Bronx, *id.* at 26, and pointed to elements like “manmade clutter [and] leaves” that could affect signal strength, *id.* at 38. In short, Petersohn

acknowledged that cell-site analysis is influenced by the unique characteristics of an area, and Defendant has provided no reason that Petersohn would not engage in the same location-specific analysis that he had in the past. Indeed, the government has explained that Petersohn's testimony is based on a "review of the geography, topography, and environmental and man-made factors that might affect the functioning of cell sites in Manhattan and New Jersey." Dkt. No. 263-1 at 4. That Petersohn has not disclosed in detail the contours of these factors does not mean that his methodology does not consider them.

The concerns presented by Ray go to the weight of the expert's testimony and not to its admissibility. *Fama*, 2012 WL 6102700, at \*4. As to the accuracy of the underlying data, the facts and data underlying Petersohn's testimony comes from service providers and is maintained by those providers in the ordinary course of their businesses for billing purposes. In other words, the providers have a financial interest in their accuracy; there is no reason to question their reliability. The data regarding the physical locations of the cell sites themselves is also provided by the phone companies. In any event, the government proffers that Petersohn will testify that he used Google Street View's historical images from in and around the relevant time period of 2018 and 2019 to verify the locations of each of the cell sites to which a relevant phone connected.<sup>4</sup> Although the defense points out that the service providers do not keep data "on the location of phones based on the location of towers," Dkt. No. 275 at 10, that is the subject of Petersohn's expert analysis and his application of a method to facts and data. If the service providers did analyze and keep records of the likely location of cell phones accessing their towers, there might well be no need for expert testimony at all. The parties could simply offer the records.

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<sup>4</sup> That testimony is answer to the defense's argument that 40% of the cell site location maps in the dataset reviewed by proposed defense expert John B. Minor were inaccurate. Dkt. No. 275 at 11. Petersohn controlled for that risk of inaccuracy by using Google Street View.

Moreover, and as Judge Rakoff acknowledged in *Scales*, the defense’s concerns with Petersohn’s consideration of New York City’s specific characteristics in his cell-site analysis—characteristics which Petersohn has acknowledged plays a role in his analysis—speaks not to the admissibility of his testimony but to the weight that testimony should be afforded by a jury. *See* Dkt. No. 265-3 at 38–39 (explaining that line of questioning regarding “different factors that could affect signal strength” “doesn’t go to the admissibility of this evidence because . . . both sides assume the same basic physical principles are operating. They’re just not in agreement as to . . . what you can reasonably infer from the notations about location”).

In short, with one exception, there is no basis to question the reliability of any of that information, and the one exception is—for reasons discussed below—largely irrelevant in this case and, in any event, insufficient to exclude Petersohn’s testimony.

There is no reason to question Petersohn’s methodology or, as indicated above, his qualifications to apply it. The fact that the methodology does not permit Petersohn to determine precisely where the cellphone was located does not make his testimony unreliable where, as here, he does not purport to testify to an exact location but only to an approximate one. Finally, Petersohn will testify regarding the scientific principles and methodology underpinning cell site location analysis and the 3GPP protocols programmed into each cellphone. Rule 702 is not limited to experts who testify on the basis of scientific knowledge. Peer review and acceptance by the scientific community are neither necessary, nor always sufficient, conditions for the admissibility of expert testimony under Rule 702. *Kumho Tire*, 526 U.S. at 151. In addition, “expert testimony need not be based on statistical analysis in order to be probative.” *United States v. Joseph*, 542 F.3d 13, 21 (2d Cir. 2008) (internal quotation marks and citation omitted), *abrogated on other grounds as recognized by United States v. Ferguson*, 676 F.3d 260, 276 n.14



(2d Cir. 2011). Indeed, the Second Circuit has held that evidence regarding cell-site location information should be admitted through expert, rather than lay, testimony. *See generally United States v. Natal*, 849 F.3d 530 (2d Cir. 2017).

Ray argues that Petersohn’s testimony is unreliable because of an issue regarding cell-site records for Verizon VOLTE (Voice Over Long-Term Evolution) calls. Typically, Verizon VOLTE call detail records capture the exact cell site used by the target cellphone at the start of a phone call, *i.e.*, its originating cell-site location. Due to a technical issue with one of Verizon’s vendor’s call-routing technologies, call detail records for VOLTE calls reported the “terminating” cell site location where they should have reported the “originating” cell-site location. Dkt. No. 263-3. The issue does not undermine Petersohn’s testimony or render the records unreliable for the purposes for which he is using those records. The government represents that it is relying on Verizon VOLTE call-detail records for calls on four particular dates and each of the relevant calls is ten minutes or less in duration. According to the government’s proffer, Verizon records the exact location of a cell site, and the time which the cell site is accessed is accurate to within ten minutes. Dkt. No. 265 at 11. Accordingly, a difference of ten minutes between origination and termination of a call should not be material when the testimony relates to the question of whether the devices were used in close geographic and temporal proximity with one another. In any event, the defense can cross-examine on the matter.<sup>5</sup>

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<sup>5</sup> The defense asks for the government to provide additional discovery relating to the technical issues that caused Verizon’s VOLTE call-detail records to be inaccurate. Dkt. No. 275 at 6. But it is not the government’s obligation to gather evidence that is outside of its custody and control for the defense to use for cross-examination. The government has represented that it has produced all information in its possession regarding the VOLTE call-routing issue. Dkt. No. 265 at 11.

Finally, Petersohn’s testimony is also relevant under Federal Rule of Evidence 401, and its probative value exceeds any potential for unfair prejudice under Federal Rule of Evidence 403. In particular, the government proffers that the expert testimony is being offered to corroborate the testimony of Female Victim-1. She apparently will testify that she met with commercial sex clients at various hotels in New York City, and that on numerous occasions she met with Ray and Pollok at or near her hotel or near the residence of Ray and Pollok in Piscataway, New Jersey, to transfer the proceeds of her commercial sex work. The cell-site location evidence will show that cellphones used by Ray and Pollok accessed cell sites in the vicinity of Female Victim-1’s cellphone on the dates of such transfers. It also will establish that the cellphones used by Ray and Pollok were in proximity to one another during relevant calls. “The prejudice that [Ray] purports to identify is simply the concern that the jury will credit [the expert’s] testimony . . . . This is not the sort of prejudice against which Rule 403 guards.” *United States v. Rosario*, 2014 WL 6076364, at \*3 (S.D.N.Y. Nov. 14, 2014).

The Court finds that a preliminary hearing regarding the admissibility of Petersohn’s testimony is not necessary “because the Court is exercising its discretionary gatekeeping function in determining the reliability and relevancy of the testimony.” *See Frazier*, 2016 WL 4994956, at \*3 (holding that *Daubert* hearing was not necessary before admission of cellsite location information and citing cases). The *Daubert* motion is denied.

## **II. Dawn Hughes**

Ray argues that the testimony of Dawn Hughes should be excluded for failure to satisfy Rule 16(a)(1)(G), as well as on *Daubert* and Federal Rules of Evidence 401 and 403 grounds.

The government disclosed Dr. Hughes as an expert witness on November 15, 2021. Dkt. No. 263-1. According to its notice, “Dr. Hughes is a clinical psychologist and a board-certified forensic psychologist, and she is a leading expert on sexual abuse, interpersonal violence,

victimization, and traumatic stress.” Dkt. No. 263-1 at 2. She also “maintains an independent practice in clinical and forensic psychology, is a Clinical Assistant Professor of Psychology in the Department of Psychiatry at Weill Cornell Medical College, served as President of the Women’s Mental Health Consortium from 2009 to 2017, and was recently elected as President of the Trauma Division of the American Psychological Association.” *Id.* She has published, made presentations, and conducted health trainings on the topics that will be the subject of her testimony. *Id.* She has “25 years of clinical and forensic practice assessing victimization,” and her testimony will be based on that experience as well as her trauma-based education and training and “an extensive study of the empirical data and social science literature on sexual assault, interpersonal violence, victimization, coercive control, and trauma.” *Id.*

The Government describes Dr. Hughes’ expected testimony as follows:

Dr. Hughes is expected to testify about coercive control as a tactic of victimization and a strategy to gain dominance across a spectrum of relationships. Dr. Hughes’s testimony is expected to explain how the overarching dynamic of victimization is an abuse of power and control where the harasser or perpetrator engages in self-centered behavior to satisfy his own goals and desires regardless of the needs, wants, and well-being of the target or victim. Threats and the imposition of negative consequences for non-compliance with demands and expectations are the cornerstones of victimization. When threats are paired with actual physical or sexual violence and abuse, the perpetrator demonstrates an ability and a willingness to make good on threats. Thereafter, verbal threats become more salient and powerful, and physical or sexual violence by the perpetrator may not be needed to exert the same level of control over the victims. Dr. Hughes is also expected to testify about the common elements of abuse and coercive control in victimization situations, including the following: actual or threatened physical violence, force, and aggression; sexual assault, abuse, control, and coercion, and sexual degradation; financial and economic control; physical and emotional isolation from preexisting support networks and external influence; use of collateral or damaging or compromising information; exploitation of preexisting psychological, developmental, traumatic, or financial vulnerability; psychological degradation and humiliation; gaslighting; and surveillance techniques limiting privacy and independent thought, and instilling the belief that the leader is omnipresent. The function of all these abusive behaviors is to indoctrinate victims into a belief system that benefits the perpetrator, maintains compliance, creates dependency, assures non-disclosure of abuse, preserves dominance, and creates psychological

entrapment and cognitive confusion. Dr. Hughes has not evaluated any specific victim in this case, and the Government does not presently intend to offer Dr. Hughes's testimony regarding any specific victim.

*Id.* at 3.

On December 13, 2021, the government furnished the defendant with a bibliography of works relied upon by Dr. Hughes for a 2017 report for a state court proceeding. Dkt. No. 265 at 23 n.8.

Ray argues that Dr. Hughes's testimony should be excluded because the government has violated Federal Rule of Civil Procedure 16(a)(1)(G) by not disclosing the data and social science literature upon which she will base her testimony. He also argues that the testimony is inadmissible under *Daubert* and Federal Rule of Evidence 403 because: (1) Dr. Hughes is not qualified to opine on the mental states, motivations, intentions, or subjective mental processes of persons accused of interpersonal violence; (2) her proffered testimony, in large part, is not based on reliable data or expert methodology; (3) significant portions of her testimony do not satisfy the helpfulness requirement of Federal Rule of Evidence 702 because they do not fit the facts of the case; and (4) her testimony would improperly intrude on the jury's province to make credibility determinations and to decide the ultimate issues in the case.

The arguments are without merit. The government's notice satisfied Rule 16(a)(1)(G). The government disclosed a summary of the witness's opinions, the bases and the reasons for them, and the witness's qualifications. Ray's argument that the notice is deficient because it does not disclose "empirical data and social science literature," Dkt. No. 263 at 27, is unconvincing—Dr. Hughes is basing her testimony not on any specific literature but on her clinical and forensic practice assessing victimization, and on her trauma-based education and training, including her study of literature generally regarding sexual assault, interpersonal violence, victimization, coercive control, and trauma. *See United States v. Maxwell*, No. 20 Cr.

330 (S.D.N.Y. Nov. 11, 2021) ECF No. 435 at 2–3 (finding it sufficient that expert relied on her extensive experience treating victims of sexual abuse combined with her formal training); *see also Amorgianos*, 303 F.3d at 266 (holding that expert need not back his or her opinion with published studies for testimony to be admissible). As Judge Engelmayer has noted in a related context, “studying the circumstances and psychological drivers of trafficked women is not like studying diseases or potential cures in laboratory animals. . . . The testimony . . . necessarily uses more qualitative research methodologies. These involve interviews and case studies and clinical examinations over time.” Tr. at 29:4 to 30:20, *United States v. Randall*, No. 19 Cr. 131 (S.D.N.Y. Feb. 25, 2020) ECF No. 335. In any event, Ray’s argument on this point has been mooted by the government providing a bibliography.

Ray’s *Daubert* arguments also are without merit. Multiple courts in this District and elsewhere have admitted similar testimony where, as here, it is not offered as evidence of the defendant’s intent<sup>6</sup> but to help a jury understand a common set of conduct experience by victims or the actions normally taken by those committing certain crimes to seduce their victims, *see United States v. Romero*, 189 F.3d 576, 585–56 (7th Cir. 1999), and to explain “seemingly counterintuitive behavior” of victims or “conduct not normally familiar to most jurors,” *United States v. Torres*, 2021 WL 1947503, at \*7 (S.D.N.Y. May 13, 2021) (internal quotation marks omitted) (quoting *Joseph*, 542 F.3d at 22); *see also Maxwell*, 20 Cr. 330, ECF No. 435 at 4–5; *United States v. Kidd*, 385 F. Supp. 3d 259, 263–64 (S.D.N.Y. 2019); Tr. 26:25 to 27:14, *United States v. Dupigny*, No. 18 Cr. 528 (S.D.N.Y. Oct. 17, 2019) ECF No. 198; *Randall*, 19 Cr. 131,

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<sup>6</sup> Rule 704(b) of the Federal Rules of Evidence states: “In a criminal case, an expert witness must not state an opinion about whether the defendant did or did not have the mental state or condition that constitutes an element of the crime charged or of a defense. Those matters are for the trier of fact alone.” Fed. R. Evid. 704(b).

ECF No. 335; *Torres*, 2021 WL 1947503, at \*7; *United States v. Halamek*, 5 F.4th 1081, 1087–89 (9th Cir. 2021); *United States v. Johnson*, 860 F.3d 1133, 1141 (8th Cir. 2017); *United States v. Batton*, 602 F.3d 1191, 1201–02 (10th Cir.2010); *United States v. Hitt*, 473 F.3d 146, 158 (5th Cir. 2006); *Romero*, 189 F.3d at 585 (7th Cir. 1999). There are some differences among these cases. Some involve child sexual abuse while others involve the relationship between pimp and an adult prostitute. But the Court finds persuasive the observation of the Eighth Circuit that:

While [certain of] these cases involved sexual abuse of children, [there is] no reason why similar testimony should not also be considered helpful to the jury in cases where, as here, the victim of sexual abuse is an adult. Regardless of the victim’s age, expert testimony about how individuals generally react to sexual abuse—such as not reporting the abuse and not attempting to escape from the abuser—helps jurors evaluate the alleged victim’s behavior.

*Johnson*, 860 F.3d at 1140.

Ray argues that Dr. Hughes’ testimony should not be received because she is not qualified to opine on the mental states, motivations, intentions, or subjective mental processes of persons accused of interpersonal violence and such testimony would therefore not be reliable. Dkt. No. 263 at 26, 28; Dkt. No. 275 at 19–23. He argues that Dr. Hughes’ qualifications and work do not qualify or permit her to testify regarding the intent of Ray or of others engaged in sexual abuse, or “perpetrators’ subjective motivations, thought processes, and mental states.” Dkt. No. 275 at 20. Ray notes that Dr. Hughes has no experienced treating those accused of committing abuse and the materials cited in her curriculum vitae and the government’s notices demonstrate a lack of familiarity with studies of abusers. *Id.* at 22.

The objection is misdirected. As was clarified at argument, Dr. Hughes does not propose to testify to the subjective motivations, thought processes, and mental states of abusers in general or of Ray specifically. Rather, she intends to testify to a common set of conduct experienced by those who are victims of interpersonal violence and the effect that that conduct commonly has on

those who are victims of it. In particular, and notably, she proposed to testify to the “function” of a variety of abusive behaviors and how they affect the victims—in other words, she proposes to testify to the impact that certain conduct has on its victims, *i.e.*, “how victims experience such common elements of abuse and coercive control and how these elements function to allow perpetrators to establish and maintain control.” Dkt. No. 265 at 28.

The government has established Dr. Hughes’ competence and qualifications to give that expert testimony. She has had extensive experience not only with those who have been victims of sexual abuse and has extensive training in this area, but she also maintains an independent practice that specialized in traumatic stress and interpersonal violence and has presented extensively on complex trauma generally. *See* Dkt. No. 263-1 at 26, 29–31; *see also* Trial Tr. at 3913–18, *United States v. Kelly*, No. 19 Cr. 286 (E.D.N.Y. Sept. 17, 2021) ECF No. 250 (testifying as to experience in trauma psychology and with victims of interpersonal violence). That experience and training qualify her to testify to the type of conduct that victims of sexual abuse and interpersonal violence have faced and the effect of that conduct on the victims. *Maxwell*, 20 Cr. 330, ECF No. 435 at 5; *Halamek*, 5 F.4th at 1088. Moreover, as long as the expert does not vouch for the victim by diagnosing her as a victim of sexual abuse or express an opinion that sexual abuse has in fact occurred, the testimony does not necessarily invade the province of the jury. *See Maxwell*, 20 Cr. 330, ECF No. 435 at 9–10.<sup>7</sup>

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<sup>7</sup> Ray suggests that Dr. Hughes should not be permitted to offer testimony that the function of certain abusive behavior was to maintain compliance and assure non-disclosure of abuse, conduct it characterizes as “grooming.” The Court agrees with the defense that Dr. Hughes cannot testify that Ray engaged in “grooming” for the purpose of controlling his victims. Such testimony would go to Ray’s motive and intent. The government has agreed it will not offer the testimony for that purpose. However, Dr. Hughes can give testimony about the type of conduct commonly experienced by victims of sexual predators. The fact that the government chose in *Ranieri* not to offer Dr. Hughes’s testimony regarding grooming techniques, rather than to ask the court to rule on it, does not establish the inadmissibility of such testimony here.

Ray also argues that Dr. Hughes’ testimony is not based on sufficient facts or data and is not grounded in any reliable methodology because it is based in large part on unverified stories her clients have told her, and her testimony would also transmit inadmissible hearsay to the jury. Dkt. No. 263 at 32–38. As already mentioned, Dr. Hughes’ testimony is not based exclusively on her experience from her clinical practice—it is also based generally on her training and on “an extensive study of the empirical data and social science literature on sexual assault, interpersonal violence, victimization, coercive control, and trauma.” Dkt. No. 263-1 at 3. But in any event, similar arguments have been made and properly rejected in other cases, and the Court agrees with their analyses. The Court rejects the challenge to Dr. Hughes’ testimony for the same reasons that Judge Nathan rejected the identical challenge to the testimony of the expert in *Maxwell*:

Given the realities of studying sensitive criminal acts like sexual abuse, a researcher can only rarely verify reports with absolute certainty. Yet that does not mean that a clinical or forensic psychologist accepts all statements at face value . . . . [P]art of [Dr. Hughes’] profession is to examine and diagnose her patients consistent with her significant training and specialized knowledge.

*Maxwell*, 20 Cr. 330, ECF No. 435 at 6. As to the concern that the government will use Dr. Hughes’ testimony as a vehicle to convey otherwise inadmissible hearsay to the jury, Judge Cote cogently answered that argument:

“An expert witness may base opinions on otherwise inadmissible facts or data,” such as the alleged hearsay statements of the interview subjects, “of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject.” [The expert’s] research methodology may be based on qualitative interviews that involve listing to the statements of domestic abuse victims, but her testimony will involve the synthesis and interpretation of those statements, rather than the mere conveyance of those statements to the jury. That is sufficient to satisfy Rule 703.

*Torres*, 2021 WL 1947503, at \*7 (quoting *United States v. Dukagjini*, 326 F.3d 45, 51 (2d Cir. 2003)); see also *United States v. Locascio*, 6 F.3d 924, 938 (2d Cir. 1993) (explaining that



“expert witnesses can testify to opinions based on hearsay or other inadmissible evidence if experts in the field reasonably rely on such evidence in forming their opinions”); *United States v. Daly*, 842 F.2d 1380, 1387–88 (2d Cir. 1988) (same).<sup>8</sup>

Next, Ray argues that Dr. Hughes’ proffered testimony will impermissibly bolster the credibility of government fact witnesses and usurp the jury’s factfinder role. Expert “witnesses may not opine as to the credibility of the testimony of other witnesses at the trial,” *United States v. Scop*, 846 F.2d 135, 142 (2d Cir. 1988), and “expert opinions that constitute evaluations of witness credibility, even when such evaluations are rooted in scientific or technical expertise, are inadmissible under Rule 702,” *Nimely v. City of New York*, 414 F.3d 381, 398 (2d Cir. 2005). Likewise, while “an expert may opine on an issue of fact within the jury’s province, he may not give testimony stating ultimately legal conclusions based on those facts.” *United States v. Bilzerian*, 926 F.2d 1285, 1294 (2d Cir. 1991). Thus, testimony that “essentially instruct[s] the jury as to an ultimate determination that [is] exclusively within its province” is inadmissible. *Nimely*, 414 F.3d at 398.

At the same time, however, there is nothing wrong with testimony that corroborates the testimony of a party’s fact witnesses and thereby makes that testimony more credible or believable to the jury. That is a necessary condition of all admissible evidence—it has the

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<sup>8</sup> The defense also argues that Dr. Hughes intends to repeat in front of the jury unproven anecdotes regarding the victimization experienced by others in other cases, depriving Ray of the opportunity to confront and cross-examine the declarants. But Dr. Hughes will be permitted to do so only if the anecdotes are those reasonably relied by those in the field, if they explain her qualifications and the bases for her opinions, and if they are relevant (particularly given any cross-examination) and their probative value is not substantially outweighed by their prejudicial effect. She will not be permitted to give examples “as general proof of the truth of the underlying matter,” and she will only be able to give examples in her capacity as an expert witness. *See Dukagjini*, 326 F.3d at 58.

“tendency to make a fact more or less probable than it would be without the evidence.” Fed. R. Evid. 401(a).

Ray has not established that Dr. Hughes will testify regarding the credibility of any of the witnesses or victims. The government’s disclosure makes clear that she has not examined any specific victim in this case and that she will not offer testimony regarding any specific victim. Dkt. No. 263-1 at 4. Her testimony will bolster the testimony of any particular victim or witness only in the sense that if the jury finds Dr. Hughes’ testimony regarding *modus operandi* and the effect of sexual abuse on a victim to be credible and if it finds that the facts as testified to by a victim fit the pattern described by Dr. Hughes, it might find that testimony to be more credible than if Dr. Hughes had not testified. But the defense will be able to cross-examine both Dr. Hughes and the alleged victims. If it turns out that the testimony of Dr. Hughes will support the testimony of the victims, that will be because the witnesses testify consistently with what Dr. Hughes will testify is victim experience generally and because the jury—after cross-examination—will believe both Dr. Hughes and the victims. It will not be because Dr. Hughes lends an expert sheen by testifying that a witness is credible. Presenting expert testimony that is consistent with lay witness testimony is the permissible building block for any case, whether it be presented by the plaintiff or by the defendant.

As to the concern that Dr. Hughes’s testimony will invade the province of the jury, the Second Circuit has distinguished between expert testimony that “a certain pattern of conduct is often found in [a particular type of] cases, leaving it for the jury to determine whether the defendant’s conduct fits the pattern,” and testimony that a defendant’s conduct actually fits a particular pattern. *United States v. Ruggiero*, 928 F.2d 1289, 1305 (2d Cir. 1991) (quoting *United States v. Scop*, 846 F.2d 135, 141 (2d Cir. 1988)); see also *United States v. Skyers*, 787 F.

App'x 771, 775 (2d Cir. 2019) (summary order). Dr. Hughes proposes to offer the former type of testimony, and the defense will have the opportunity to cross-examine her on it. It will be up to the jury to determine whether Ray's conduct fits the pattern Dr. Hughes describes.

Ray argues that Dr. Hughes' testimony should be excluded because it does not "fit" the case. He claims that Dr. Hughes' prior testimony involves allegations of rape, sexual assault or sexual violence, of sexual abuse of minors and that testimony based on that experience would not be helpful to the jury because it does not fit the facts of this case which involves "fully formed, high-achieving adults." Dkt. No. 263 at 45; Dkt. No. 275 at 27. "*Daubert's* 'fit' requirement is really just a specialized relevance inquiry that asks 'whether expert testimony proffered in the case is sufficiently tied to the facts of the case that it will aid the jury in resolving a factual dispute.'" *Maxwell*, 20 Cr. 330, ECF No. 435 at 9 (quoting *Alto v. Sun Pharm. Indus., Inc.*, 2021 WL 4803582, at \*3 (S.D.N.Y. Oct. 13, 2021)). But Dr. Hughes' curriculum vitae makes clear that her expertise is not limited to sexual abuse created by threats of physical violence or that are committed against minors. And Ray's objection is based on a selective quotation of her prior testimony. Although she has testified in prior cases that minors are susceptible to grooming manipulation, in that same testimony she also stated that adolescents and young adults also are susceptible to grooming mechanisms. Trial Tr. at 3923:13–22, *Kelly*, No. 19 Cr. 286, ECF No. 250. In short, as it was with respect to Petersohn's qualifications as an expert, the defense's argument is based on "an overly narrow assessment" of Dr. Hughes's expertise. *Raniere*, 2019 WL 2212639, at \*6.

Finally, the defense argues that Dr. Hughes' testimony should be excluded under Rule 403 because her repeated references to incidents of sexual assault, child molestation, and child sexual abuse that form the basis for her opinions would confuse and inflame the jury and create

the danger that the jury will associate Ray with such conduct. That argument is mistaken. Dr. Hughes’ “testimony will help the jury contextualize th[e] seemingly counterintuitive behavior” of the victims. *Torres*, 2021 WL 1947503, at \*7.

“In the context of this case, [the] testimony regarding the generalities of domestic [and sexual] abuse will be no more inflammatory or prejudicial than the other evidence . . . that will be presented to the jury.” *Id.* In any event, the parties may litigate in limine and close to the date of trial the extent to which Dr. Hughes may refer to any of her prior cases involving child sexual abuse or instances of violent conduct.

### **III. Richard Pleus**

The government proffers Dr. Richard Pleus as an expert to testify that there are no biomarkers in Ray’s medical records to indicate that he was “exposed to toxins or toxicants—including mercury, estrogen compounds, cleaning fluids, thalium [sic], copper, ricin, cyanide, organophosphates, or arsenic—at doses that would cause the health effects reports by Mr. Ray.” Dkt. No. 263-1. Dr. Pleus concludes that Ray “has not suffered any health impairment from intentional poisoning.” Dkt. No. 263 at 49. Dr. Pleus’s testimony goes to the Indictment’s allegation that the “confessions” made by the alleged victims here that they had poisoned him were “false.”

Ray argues that Dr. Pleus’s testimony should be excluded or limited. He contends that because Dr. Pleus is not a medical doctor he is not qualified to testify about diagnoses reached by other doctors and that because Dr. Pleus has not examined Ray and has only a selection of his medical records, his testimony is not based on sufficient facts or data under Rule 702(b). Dkt. No. 263 at 49–50. Finally, he asserts that Dr. Pleus’s testimony would improperly bolster the credibility of the government’s witnesses.

The government has established Dr. Pleus's qualifications to give the proffered testimony. Dr. Pleus holds a Ph.D. in environmental toxicology and a Master of Science degree in environmental public health. He is the Chief Executive Officer and Chief Toxicologist at Intertox, Inc., a scientific consulting and research firm. He "has published and conducted extensive research on the effects of chemicals on the human body, including metals, nanomaterials, chemical warfare agents, pesticides, pharmaceuticals, chlorinated hydrocarbons, volatile and non-volatile organic compounds, and mycotoxins." Dkt. No. 263-1 at 6. He has been a professor in departments of toxicology and pharmacology, has extensive relevant project experience, has multiple relevant professional memberships, and has testified as an expert in numerous proceedings in various different fora including in federal and state court. Dkt. No. 263-1 at 36– 65. *See Rianda v. Olin Corp.*, 2006 WL 1525694, at \*2 (N.D. Cal. May 30, 2006) (crediting Dr. Pleus's testimony that plaintiff's medical records were inconsistent with poisoning).

Dr. Pleus need not necessarily have a medical degree to be able to read a medical record. "The discipline of toxicology is primarily concerned with identifying and understanding the adverse effects of external chemical and physical agents on biological systems." Reference Manual on Scientific Evidence, Reference Guide on Toxicology, at 635 (3d ed. 2011). Whole fields of human knowledge, including toxicology, epidemiology, and pharmacology, have developed from scientists and other experts who do not have a M.D. but who do have a Ph.D. interpreting medical records. Indeed, it is not unknown for studies of pharmacological products to be based on a centralized analysis of safety and efficacy data compiled from numerous clinical reports of doctors in the field. *See, e.g., In re Mirena IUD Prods. Liab. Litig.*, 169 F. Supp. 3d 396, 483 (S.D.N.Y. 2016) (considering expert qualifications of epidemiologist basing opinion on

“a review of case reports, adverse event data, and relevant scientific and medical literature”); *In re Fosamax Prods. Liab. Litig.*, 645 F. Supp. 2d 164, 200 (S.D.N.Y. 2009) (concluding that experts “have reasonably relied in part on adjudicated [adverse event reports] to form their general causation opinions” as to the link between a product and injury); *In re Pfizer Inc. Secs. Litig.*, 2010 WL 1047618, at \*7 (S.D.N.Y. 2010) (denying motion to preclude expert testimony of Ph.D. biostatistician regarding the meta-analysis of clinical trial data regarding the safety of a drug). More specifically, courts have permitted toxicologists who are not medical doctors to compare known values from medical records to medical literature and opine on potential health impairments. *Hopkins v. Dow Corning*, 33 F.3d 1116, 1124–25 (9th Cir. 1994), *cert denied*, 513 U.S. 1082 (1995) (holding that toxicologist was qualified to opine on relationship between medical implants and plaintiff’s illness based on experience as toxicologist, his review of medical records, and his general scientific knowledge); *Ashley v. City of Bridgeport*, 473 F. Supp. 3d 41, 47 (D. Conn. 2020) (holding that toxicologist was qualified to testify about consistency of plaintiff’s behavior with generally understood effects on a person of drugs shown in toxicology results); *Ford v. Carnival Corp.*, 2010 WL 9116184, at \*2 (S.D. Fla. Mar. 4, 2010) (holding that toxicologist was competent to testify based on review of medical records and his general scientific knowledge to the required concentration of chlorine gas necessary to cause adverse physical effects). Indeed, the defense offers no case law for the proposition that the only persons qualified to interpret medical records are persons with a medical degree.<sup>9</sup>

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<sup>9</sup> In *Morgan v. Girgis*, 2008 WL 2115250, at \*5 (S.D.N.Y. May 16, 2008), the court held that a biomechanical engineer was qualified to offer testimony regarding the forces generated by certain accidents and the likely effects of such forces on the human body but could not offer an opinion on whether the accident at issue in the case could have caused the plaintiff’s injuries; it did not rule that only medical doctors could review and render an opinion based on medical records. In *Bennett v. Target Corp.*, 2019 WL 7556361, at \*7 (E.D.N.Y. Jan. 2, 2019), the court held that a witness offered as a retail design and safety expert in a slip-and-fall negligence case,

In addition, the defense's argument that Dr. Pleus's opinion is not based on sufficient facts or data because he did not examine Ray is without merit. Dr. Pleus examined Ray's medical records, which have been identified to the defense, and found that they were sufficiently standard to form an opinion without physically examining Ray. Dr. Pleus will not offer "medical conclusions about Mr. Ray's health." Dkt. No. 275 at 33. He is expected to offer testimony from his knowledge and experience regarding the biomarkers and symptoms that would result from human exposure to the toxins Ray claims to have been exposed to and further to testify that Ray's medical records do not reveal biomarkers that would suggest he was exposed to those toxins. In particular, he will testify to the half-life of mercury and that the levels of mercury in defendant's blood were inconsistent with the symptoms he reported to medical professionals and with him being poisoned by mercury. The defense may cross-examine on whether those records are sufficient for Dr. Pleus to form his opinion and whether he should have examined Ray. But the mere fact that he has not examined Ray does not provide grounds to exclude his testimony. *See Hopkins v. Dow Corning*, 33 F.3d at 1124–25; *Giladi v. Strauch*, 2007 WL 415365, at \*10 (S.D.N.Y. Feb. 6, 2007) (holding that testimony based on experience and review of medical records was admissible); *Carroll v. Morgan*, 17 F.3d 787, 789–90 (5th Cir. 1994) (expert was qualified under *Daubert* where testimony was based on decades of experience and a review of medical records).

Finally, Dr. Pleus's testimony does not improperly bolster the testimony of the witnesses and is not cumulative. Ray argues that Dr. Pleus's testimony is impermissible because one or

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who had no medical or biomechanical training and whose expertise in retail did not give him the necessary background for commenting on specific causation, could not offer testimony regarding the causes of the plaintiff's injuries. Neither case bears the most remote resemblance to this case.

more of the alleged victims who once stated that she had poisoned Ray now does not believe that she did so and will testify to that new belief. But the fact that a witness will testify that she now believes her prior admission of poisoning to be untrue does not mean that Dr. Pleus's testimony is improper. Dr. Pleus will testify that the medical records are not consistent with Ray having been poisoned and thus the jury may draw the inference that he was not poisoned. "This testimony may be probative in that it may corroborate" the testimony of certain witnesses that they did not poison Ray, but that does not make it "needlessly cumulative." *Raniere*, 2019 WL 2212639, at \*8 (alteration adopted) (quoting Fed. R. Evid. 403).<sup>10</sup>

#### **IV. Stephen Flatley**

In its November 15, 2021 notice, the government stated that it expected to call FBI Special Agent Stephen Flatley to testify regarding his analysis of images of laptop computers, external storage drives, and cellphones recovered from Ray on or about February 11, 2020 and regarding the analysis of images of laptop computers and cellphones recovered from other individuals during the investigation of the case, including the laptop seized on July 22, 2021.

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<sup>10</sup> In a footnote, the defense argues that Dr. Pleus's testimony should be excluded because it is a vehicle for the government to introduce hearsay to the jury in the form of otherwise inadmissible medical records. Dkt. No. 263 at 49 n.9. But experts can base their testimony on otherwise inadmissible records, *see* Fed. R. Evid. 703; *Yin Wang v Yum! Brands, Inc.*, 2008 WL 428669, at \*3 (E.D.N.Y. Feb. 14, 2008) (Bianco, J.) (holding that "the fact that the underlying medical records were not certified and may not have been independently admissible . . . [did] not preclude [expert] from giving his expert opinion based, in part, on review of such records"); *Torres*, 2021 WL 1947503, at \*7 ("An expert witness may base opinions on otherwise inadmissible facts or data, such as the alleged hearsay statements of the interview subjects, of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject." (internal quotation marks and citation omitted)); *Locascio*, 6 F.3d at 938 ("[E]xpert witnesses can testify to opinions based on hearsay or other inadmissible evidence if experts in the field reasonably rely on such evidence in forming their opinions."); *Daly*, 842 F.2d at 1387–88 (same). In any event, there is a hearsay exception for statements made for medical diagnosis or treatment, *see* Fed. R. Evid. 803(4). The defense further reserves its rights to make additional objections to Dr. Pleus's testimony in its in limine briefing, and the Court accordingly will address any other objections then.



Special Agent Flatley will explain the procedures for retrieving and analyzing forensic data from such electronic media and some of the retrieval and analysis done in this case. Dkt. No. 263-1. In particular, Special Agent Flatley may be asked at trial to examine certain exhibits and their associated metadata and may testify about document properties or metadata properties—such as the fields listing the author, content created data, date last saved, last saved by, and last printed—for certain files. He is expected explain that he examines metadata fields by running Access Data’s AD Lab and that metadata is information about a file, such as the file name and when the file was created, and that it can be stored in a computer’s file system or embedded inside certain files, such as Word documents. Dkt. No. 265 at 41.

Although the government does not concede that Mr. Flatley’s testimony is properly characterized as expert testimony, it provided notice in an “abundance of caution.” Dkt. No. 263-1. The government has given the defense a complete list of the devices extracted by Special Agent Flatley in this case, Dkt. No. 261-1, and, in response to a defense request, identified the procedures and programs Special Agent Flatley used to extract the digital evidence. Dkt. No. 263-2. It also has listed cases in which Special Agent Flatley has provided testimony on similar subjects either as a lay witness or as an expert. The government also commits to identify the specific exhibits about which Special Agent Flatley will testify and to mark as exhibits any metadata that it introduces to introduce “sufficiently in advance of trial.” Dkt. No. 265 at 42.

Ray argues that the Court should preclude Special Agent Flatley from testifying as an expert and, in particular, should preclude him from testifying as a lay witness about the substance of the data and whether the extraction reports demonstrate that Ray downloaded, viewed, or sent any of the materials at issue in this case. Ray argues that, to the extent that the government wishes to preserve the option that Special Agent Flatley testify as an expert, the

notice does not satisfy Rule 16(a)(1)(G) and, in any event, the Second Circuit frowns on law enforcement agents testifying as both lay and expert witnesses. *See Cruz*, 363 F.3d 187, 194–95 (2d Cir. 2004). Ray also argues that testimony about the substance of data extracted from electronic devices should be considered expert and is not the proper subject of lay opinion testimony. Dkt. No. 263 at 53–54.

It is a close question whether Special Agent Flatley’s testimony should be considered lay testimony or expert testimony. Lay opinion testimony must be “(a) rationally based on the witness’s perception; [and] (b) helpful to clearly understanding the witness’s testimony or determining a fact in issue” but also “not based on scientific, technical, or other specialized knowledge within the scope of Rule 702.” Fed. R. Evid. 701. It is clear and not disputed that Special Agent Flatley’s proposed testimony is rationally based on his perception and would be helpful to determining a fact in issue. He examined the devices in question. It is not so clear, however, that Special Agent Flatley’s testimony will have no basis in his specialized knowledge. The Sixth Circuit has held that the interpretation of software reports must be provided through expert testimony. *United States v. Ganier*, 468 F.3d 920, 926–27 (6th Cir. 2006). On the other hand, the Second Circuit, in an unpublished decision, has upheld as a proper exercise of a district court’s discretion, the conclusion that a law enforcement agent’s testimony regarding his extraction of data from a cellphone and his review of the contents of the messages that were extracted was not expert testimony. *See United States v. Marsh*, 568 F. App’x 15, 16–17 (2d Cir. 2014) (summary order); *see also United States v. Chavez-Lopez*, 767 F. App’x 431 (4th Cir. 2019) (holding that testimony of agent regarding his extraction of data from a cellphone was lay testimony and distinguishing *Ganier* as a case where the agent was asked to interpret the extracted data).

The Court need not now decide whether Special Agent Flatley’s testimony would fall on the expert or the lay side of the line. The disclosures that the government has made regarding his qualifications and the bases of his testimony, when combined with the disclosures—which the government committed to make and the Court will order to make three weeks in advance of trial when it serves its witness list—satisfy Rule 16(a)(1)(G). Specifically, the Court orders the government three weeks in advance of trial to disclose to the defense the specific exhibits about which Special Agent Flatley will testify and the devices from which he will testify the exhibits were retrieved. At the same time, the government shall also disclose the metadata it intends to offer into evidence through the testimony of Special Agent Flatley as well as the content of his expected testimony as to the meaning of each category of metadata reflected in the exhibit. The concerns that the Second Circuit has expressed regarding a law enforcement witness also testifying as an expert are not present here where Special Agent Flatley was not otherwise involved in the investigation of the case and will offer no other testimony besides that related to his extraction of information from the electronic devices and his interpretation of the metadata and when the government will not be able to characterize Special Agent Flatley in front of the jury as an “expert.”

#### **V. John Minor and Andres Lugo**

The government also moves to exclude the testimony of two of the Defendant’s witnesses: (1) John D. Minor, an “independent researcher/author/investor” who will testify regarding cell site information, and (2) Dr. Andres Lugo who will testify regarding defendant’s claim to have been the victim of mercury poisoning. With respect to Minor, the government argues that that its expert—Petersohn—will testify with respect to certain of the facts as to which Minor is being offered to testify, including the broad coverage areas of cell sites and that multiple factors affect which cell site a phone connects to when making or receiving a call and

that a second witness on those subjects is therefore needlessly cumulative. Dkt. No. 265 at 19–20. It also notes that the expert notice does not indicate whether Minor reviewed the relevant cell site records or analyzed any of the cell site location data or formed an opinion regarding the reliability of cell site information associated with the devices at issue in this case. *Id.* 22. The government claims with respect to Dr. Lugo that the Defendant’s expert notice is deficient and that Defendant should have been required to produce notes of Dr. Lugo’s evaluations of Ray as well as a list of the literature Dr. Lugo consulted or reviewed. *Id.* at 39. The government argues “[m]ore importantly,” that the testimony is irrelevant because certain subjects about which Dr. Lugo will testify are “not at issue in this case,” *id.* at 40, and Dr. Pleus’s anticipated testimony will cover the issues that are.

The defense argues that Minor would disagree with Petersohn on a number of topics including: that “cell phone coverage areas do not fall into neat circles, pie slices, or boxes”; that phones do not typically connect to the strongest, closest signal but rather to the best quality signal; that how phones work in real life does not match the theoretical models, particularly for Manhattan; and that Petersohn did not conduct a full validation process. Dkt. No. 275 at 17. It also argues that Dr. Lugo will give testimony about the mercury content of Ray’s blood that is different from that which will be offered by Dr. Pleus. The defense points out with respect to Dr. Lugo that his conclusion that Ray was “exposed to mercury” is different from Dr. Pleus’s conclusions that “there are no biomarkers” to indicate Ray “was exposed to toxins or toxicants – including mercury . . . at doses that would cause the health effects” reported by Ray. Dkt. No. 275 at 35.

In one recent case, the court granted the government’s request to exclude the testimony of Minor on the grounds that his opinion would cause jury confusion and that “a vigorous cross-

examination can expose whatever shortcomings there may be in the analysis of the government expert without the mini-trial on cell phone data that Minor's testimony would bring." *United States v. Cantoni*, 2019 WL 1441128, at \*3 (E.D.N.Y. Apr. 1, 2019), *aff'd*, 2021 WL 5829754 (2d Cir. Dec. 9, 2021).

This Court will reserve ruling on the admissibility of the testimony of Minor and Dr. Lugo as well as on the government's request for a *Daubert* hearing until after the government witnesses to whom the two defense experts will respond have testified and the Court can determine whether their testimony would be relevant.<sup>11</sup>

### CONCLUSION

The defendant's motion to exclude the testimony of Petersohn, Dr. Hughes, Dr. Pleus, and Special Agent Flatley is DENIED IN PART. The government is ordered to, three weeks in advance of trial, disclose to the defense: the specific exhibits about which Special Agent Flatley will testify; the devices from which he will testify the exhibits were retrieved; the metadata it intends to offer into evidence through the testimony of Special Agent Flatley; and the content of his expected testimony as to the meaning of each category of metadata reflected in the exhibit. The government is further ordered to, within two weeks of the date of this Order, provide notice to the defense containing further details as to any testimony by Petersohn specifying what is meant by the "general location" of a wireless device relative to a cell site or cell tower.


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<sup>11</sup> The Court gave the government and the defense the opportunity to identify any prejudice it would suffer if the Court deferred ruling on the government's *Daubert* motion with respect to these two witnesses. Neither identified any prejudice.

The Clerk of Court is respectfully directed to close Dkt. No. 263.

SO ORDERED.

Dated: January 11, 2022  
New York, New York



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LEWIS J. LIMAN  
United States District Judge